

### **AMENDMENTS TO THE CLAIMS**

- Claims Pending at time of the Action: 1-12 and 28-40
- Amended Claims: 1-4, 6-8, 28-36, 39, and 40
- Previously Withdrawn Claims: 13-27
- Canceled Claims: 13-27
- Claims After this Response: 1-12 and 28-40

The following listing of claims replaces all prior versions and listings of claims in the application.

1. (Currently Amended) A system comprising:

a processor;

a memory coupled to the processor;

a sender associated with at least one media data block, the sender including a block usage counter corresponding to the at least one media data block; wherein the sender does not swap out the at least one media data block when the corresponding block usage counter indicates that the at least one media data block is locked; and

a scheduler associated with at least one client, the scheduler ~~capable of~~ for scheduling delivery of media data blocks to the at least one client; wherein the scheduler ~~is adapted to transmit~~ transmits to the sender a look ahead request identifying the at least one media data block;

wherein the sender ~~is adapted to increment~~ increments the block usage counter corresponding to the at least one media data block in response to receiving from the scheduler the look ahead request identifying the at least one media data block.

2. (Currently Amended) The system as recited in claim 1, wherein the scheduler ~~is further adapted to transmit~~ transmits to the sender a send request, which designates the at least one client and stipulates the at least one media data block, after transmission of the look ahead request identifying the at least one media data block.

3. (Currently Amended) The system as recited in claim 2, wherein the sender ~~is capable of sending~~ sends the stipulated at least one media data block to the designated at least one client responsive to receipt of the send request from the scheduler.

4. (Currently Amended) The system as recited in claim 3, wherein the scheduler ~~is further adapted to transmit~~ transmits to the sender a look ahead cancel

message, which identifies the at least one media data block, after expiration of a retry period.

5. (Original) The system as recited in claim 1, wherein the scheduler transmits to the sender the look ahead request in order to reserve and/or preload the at least one media data block prior to transmission to the sender of a send request stipulating the at least one media data block.

6. (Currently Amended) The system as recited in claim 1, wherein the sender ~~is further adapted to decrement~~ decrements the block usage counter corresponding to the at least one media data block in response to receiving from the scheduler a look ahead cancel message identifying the at least one media data block.

7. (Currently Amended) The system as recited in claim 1, wherein the sender ~~is further adapted to decrement~~ decrements the block usage counter corresponding to the at least one media data block if the scheduler experiences a failure.

8. (Currently Amended) The system as recited in claim 1, wherein the sender ~~is further adapted to perform~~ performs a look ahead operation on the at least one media data block in response to receiving from the scheduler the look ahead request identifying the at least one media data block.

9. (Original) The system as recited in claim 8, wherein the sender performs the look ahead operation by checking if the at least one media data block is already present in relatively low-latency memory and, if not, by loading the at least one media data block into the relatively low-latency memory from relatively high-latency memory.

**10.** (Original) The system as recited in claim 9, further comprising:  
random access memory (RAM) that forms, at least partially, the relatively low-latency memory; and  
mass storage that forms, at least partially, the relatively high-latency memory.

**11.** (Original) The system as recited in claim 1, wherein the system comprises (i) a device on which the sender and the scheduler are functioning or (ii) a first device on which the scheduler is functioning and a second device on which the sender is functioning.

**12.** (Original) The system as recited in claim 1, wherein the block usage counter indicates that the corresponding at least one media data block is locked in random access memory (RAM) when the block usage counter comprises a nonzero value.

**13-27.** (Canceled)

**28.** (Currently Amended) ~~An arrangement~~ A method for a scheduling scheme to facilitate the distributed sending of media data, the ~~arrangement~~ method implemented on a computing device by a processor configured to execute instructions that, when executed by the processor, direct the computing device to perform acts comprising:

dividing, by a scheduler of the computing device, a plurality of media data blocks of a media data stream into three regions comprising a current region, an alternative send request region, and a look-ahead region;

~~reservation means for~~ reserving, by the scheduler of the computing device, the media data blocks, wherein the reserving comprises looking ahead along [[a]] the media data stream to reserve the media data blocks for subsequent sending to clients; and

~~sender means for~~ sending, by a sender of the computing device, the media data blocks, wherein the sending comprises locking the media data blocks responsive to the reservation means reserving until after the locked media data blocks have been sent to the clients.

**29.** (Currently Amended) The ~~arrangement~~ method as recited in claim 28, wherein the ~~reservation means~~ reserving further comprises:

~~look-ahead means for~~ requesting locks on the media data blocks by identifying to the sender ~~means~~ media data blocks to be reserved.

**30.** (Currently Amended) The ~~arrangement~~ method as recited in claim 28, wherein the ~~reservation means~~ reserving further comprises:

~~look-ahead means for~~ canceling locks on the media data blocks by identifying to the sender ~~means~~ media data blocks to be unreserved.

**31.** (Currently Amended) The ~~arrangement~~ method as recited in claim 28, further comprising:

~~request means for~~ requesting sends of the media data blocks from the sender ~~means~~ to the clients after the ~~reservation means~~ scheduler has caused the sender ~~means~~ to reserve the media data blocks.

**32.** (Currently Amended) The ~~arrangement~~ method as recited in claim 28, ~~wherein the sender means comprises further comprising:~~

~~counter means for~~ counting, by the sender of the computing device, reserved usage of each media data block of the media data blocks responsive to look ahead requests received from the scheduler ~~reservation means~~.

**33.** (Currently Amended) The ~~arrangement~~ method as recited in claim 28, ~~wherein the sender means comprises further comprising:~~

~~operation means for~~ performing look ahead operations to preload media data blocks into low-latency memory responsive to look ahead requests received from the scheduler ~~reservation means.~~

**34.** (Currently Amended) The ~~arrangement~~ method as recited in claim 28, wherein the ~~arrangement comprises at least one of (i) the instructions are encoded on one or more processor-accessible media or (ii) at least one device.~~

**35.** (Currently Amended) A system comprising:

- a processor;
- a memory coupled to the processor;
- a media data segment including a plurality of media data blocks;
- a plurality of senders, each sender of the plurality of senders associated with at least one media data block of the plurality of media data blocks, wherein the sender is for ~~and capable of~~ sending the associated at least one media data block to clients; and
- a scheduler that is associated with a client, wherein the scheduler ~~adapted to divide~~ divides the plurality of media data blocks of the media data segment into three regions comprising a current region, an alternative send request region, and a look-ahead region.

**36.** (Currently Amended) The system as recited in claim 35, wherein the current region comprises a current media data block; and wherein the scheduler ~~is further adapted to transmit~~ transmits a send request, which designates the client as a destination and stipulates the current media data block, to a sender of the plurality of senders that is associated with the current media data block.

**37.** (Original) The system as recited in claim 36, wherein the sender that is associated with the current media data block, in response to receiving the send request, sends at least one media data sub-block of the stipulated current media data block to the designated client.

**38.** (Original) The system as recited in claim 35, wherein the alternative send request region comprises at least an early data media data block and a later early data media data block; and

wherein the scheduler is further adapted:

(i) to transmit a first alternative send request, which designates the client as a destination and stipulates the early data media data block, to a sender of the plurality of senders that is associated with the early data media data block; and

(ii) to transmit a second alternative send request, which designates the client as a destination and stipulates the later early data media data block, to another sender of the plurality of senders that is associated with the later early data media data block.

**39.** (Currently Amended) The system as recited in claim 35, wherein the look-ahead region comprises at least one look-ahead media data block; and wherein the scheduler ~~is further adapted to transmit~~ transmits a look ahead request, which identifies the at least one look-ahead media data block, to a sender of the plurality of senders that is associated with the at least one look-ahead media data block.

**40.** (Currently Amended) The system as recited in claim 35, wherein the look-ahead region comprises at least one look-ahead media data block; and

further comprising:

another sender that is associated with the at least one look-ahead media data block;

wherein the scheduler ~~is further adapted to transmit~~ transmits a look ahead request, which identifies the at least one look-ahead media data block, to the other sender and to a sender of the plurality of senders that is also associated with the at least one look-ahead media data block.